

Remarks

The non-final Office Action dated March 2, 2010, notes that the previous restriction requirement has been withdrawn, and lists the following rejections: claims 1, 6-9 and 13-15 stand rejected under U.S.C. § 102(b) over Czubytyj (U.S. Patent No. 5,825,046); and claims 7-8 and 10-12 stand rejected under U.S.C. § 103(a) over the '046 reference. In the following discussion, Applicant does not acquiesce to any rejections or averments in this Office Action (unless Applicant expressly indicates otherwise).

Applicant respectfully traverses the § 102(b) and § 103(a) rejections because the cited '046 reference lacks correspondence. For example, the asserted reference does not teach the claimed invention "as a whole" (§ 103(a)) including, *e.g.*, aspects regarding the phase change material being a fast growth material and/or aspects regarding detectable relative resistance levels or ratios. Because the reference does not teach these aspects, no reasonable interpretation of the asserted prior art can provide correspondence. As such, the rejections fail.

The '046 reference fails to provide correspondence to a "fast growth material" as defined or characterized in the Specification. In asserting the teachings of the '046 reference, the Office Action failed take into account that the requirement that an examiner must interpret the claims in a manner that is "consistent with the specification." M.P.E.P. § 2111 (see also M.P.E.P. § 2111.01 (an applicant can be his own lexicographer)). The Specification explains what a "fast growth material" is and is not. For example, the Specification explains that "fast growth material" is a class of materials that is distinguishable from known phase change materials based on a different crystal growth mechanism. In a more particular discussion, the Specification explains that "fast growth material" transitions at relatively high approximate constant speed where crystallization proceeds along the interface between the two phases. *See* paragraphs 0011 and 0012 of the published application, and *see also* paragraph 37. The Office Action has failed to establish correspondence with the material disclosed in the '046 reference which would at best appear to align with the Specification's discussion of previously-known phase change materials. *See, e.g.*, the '046 reference's teaching of the phase change material in is disclosed as being a modified form of a Te-Ge-Sb alloy, with an approximate combination of $\text{Te}_5\text{Ge}_2\text{Sb}_2$. *See* Col. 7:45-54 and Col. 8:40-44. Applicant

discloses the prior art material, which uses nucleation in crystallization, as being an alloy with the approximate composition of $\text{Sb}_2\text{Te}_5\text{Ge}_2$. See paragraph 0003 of the published application. Accordingly, the '046 reference appears to be merely cumulative prior art that does not disclose a fast growth material as claimed. Therefore, the '046 reference lacks correspondence to the claimed invention and the § 102(b) and § 103(a) rejections should be withdrawn.

The Office Action's § 103(a) rejection of claims 7-8 and 10-12 evidences a misunderstanding of what is being claimed. In attempting to assert correspondence, the Office Action proposes that specific limitations of the claims are obvious because one of skill in the art would discover optimum working ranges. However, this position ignores the teachings of the '046 reference, and the specifics of the claim limitations. For example, claim 11 includes a limitation wherein the phase change material has a formula of $\text{Sb}_{1-c}\text{M}_c$. The § 103(a) rejection erroneously alleges that such a formulation of the phase change material would be obvious and realized by routine experimentation, despite the absence of any information regarding materials (as claimed and disclosed in the specification) having minimum formulation of $\text{Te}_a\text{Ge}_b\text{Sb}_{100-(a+b)}$ and the absence of any suggestion in the '046 reference that any experimentation (routine or otherwise) would be useful to pursue any aspect(s) or advantage(s) realized by a phase change material as disclosed and claimed by Applicant. A careful reading of the M.P.E.P. and the cited decision, *In re Aller*, will clarify that in the absence of such suggestions, a § 103(a) rejection cannot be maintained based on assertions that the invention is merely a design choice or a realization from experimenting with the prior art; if that were the standard, no patent would issue. Accordingly, the § 103(a) rejections must be withdrawn.

Applicant has added new claims 16-20 which are distinguishable for the same reasons as discussed above. Support for the claim can be found in the published application, for example, at paragraphs 0011, 0012, 0043, 0047-0050, and the related figures (*e.g.*, Figures 1A and 1B).

In view of the above, Applicant believes that each of the rejections is improper and should be withdrawn and that the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the

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